



#12

SEQUENCE LISTING

<110> KNAUF, VIC C.
KRIDL, JEAN C.

<120> METHODS AND COMPOSITIONS FOR REGULATED TRANSCRIPTION
AND EXPRESSION OF HETEROLOGOUS GENES

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<141> 2001-02-12

<150> US 09/232,861
<151> 1999-01-15

<150> US 08/812,665
<151> 1997-03-07

<150> US 08/484,941
<151> 1995-06-07

<150> US 08/105,852
<151> 1993-08-10

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95 100

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Asp	Gly	Cys	Met	Gly	Gly	Tyr	Met	Asn	Ser	Ala	Phe	Asn	Tyr	Thr	Met
190				195						200					
act act ggc ggc tta acc tct gaa tca aat tat cct tat aaa agc aca															676
Thr	Thr	Gly	Gly	Leu	Thr	Ser	Glu	Ser	Asn	Tyr	Pro	Tyr	Lys	Ser	Thr
205				210					215						
gac ggc act tgc aac ttc aat aaa act aaa cag ata gca act tct atc															724
Asp	Gly	Thr	Cys	Asn	Phe	Asn	Lys	Thr	Lys	Gln	Ile	Ala	Thr	Ser	Ile
220				225				230			235				
aaa ggt ttt gag gat gtc ccg gct aac gat gag aaa gcc cta atg aag															772
Lys	Gly	Phe	Glu	Asp	Val	Pro	Ala	Asn	Asp	Glu	Lys	Ala	Leu	Met	Lys
240				245					250						
gca gtg gca cac cac ccg gtt agc att gga ata gcg gga gga gat att															820
Ala	Val	Ala	His	His	Pro	Val	Ser	Ile	Gly	Ile	Ala	Gly	Gly	Asp	Ile
255				260				265							
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Gly	Phe	Gln	Phe	Tyr	Ser	Ser	Gly	Val	Phe	Ser	Gly	Glu	Cys	Thr	Thr
270				275				280							
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His	Leu	Asp	His	Gly	Val	Thr	Ala	Val	Gly	Tyr	Gly	Arg	Ser	Lys	Asn
285				290				295							
gga tta aag tac tgg atc ctc aag aat tca tgg gga cca aaa tgg gga															964
Gly	Leu	Lys	Tyr	Trp	Ile	Leu	Lys	Asn	Ser	Trp	Gly	Pro	Lys	Trp	Gly
300				305				310			315				
gaa cgt gga tac atg agg atc aaa aaa gat atc aag cct aaa cac gga															1012
Glu	Arg	Gly	Tyr	Met	Arg	Ile	Lys	Lys	Asp	Ile	Lys	Pro	Lys	His	Gly
320				325				330							
caa tgt ggt ctt gcc atg aat gct tcg tac cca act atg tgaaaaaatc															1061
Gln	Cys	Gly	Leu	Ala	Met	Asn	Ala	Ser	Tyr	Pro	Thr	Met			
335				340											
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<212> PRT
<213> Brassica campestris

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			50				55				60				
Asn	Val	Glu	Arg	Ile	Glu	Arg	Leu	Asn	Asp	Val	Gln	Ser	Gly	Leu	Thr
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Phe	Lys	Leu	Ala	Val	Asn	Gln	Phe	Ala	Asp	Leu	Thr	Asn	Glu	Glu	Phe
				85				90				95			
Arg	Ser	Met	Tyr	Thr	Gly	Phe	Lys	Gly	Asn	Ser	Val	Leu	Ser	Ser	Arg
				100				105				110			
Thr	Lys	Pro	Thr	Ser	Phe	Arg	Tyr	Gln	Asn	Val	Ser	Ser	Asp	Ala	Leu
				115				120			125				
Pro	Val	Ser	Val	Asp	Trp	Arg	Lys	Lys	Gly	Ala	Val	Thr	Pro	Ile	Lys
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Asp	Gln	Gly	Leu	Cys	Gly	Ser	Cys	Trp	Ala	Phe	Ser	Ala	Val	Ala	Ala
				145			150			155			160		
Ile	Glu	Gly	Val	Ala	Gln	Ile	Lys	Lys	Gly	Lys	Leu	Ile	Ser	Leu	Ser
				165				170				175			
Glu	Gln	Glu	Leu	Val	Asp	Cys	Asp	Thr	Asn	Asp	Asp	Gly	Cys	Met	Gly
				180			185				190				
Gly	Tyr	Met	Asn	Ser	Ala	Phe	Asn	Tyr	Thr	Met	Thr	Thr	Gly	Gly	Leu
				195			200			205					
Thr	Ser	Glu	Ser	Asn	Tyr	Pro	Tyr	Lys	Ser	Thr	Asp	Gly	Thr	Cys	Asn
				210			215			220					
Phe	Asn	Lys	Thr	Lys	Gln	Ile	Ala	Thr	Ser	Ile	Lys	Gly	Phe	Glu	Asp
				225			230			235			240		
Val	Pro	Ala	Asn	Asp	Glu	Lys	Ala	Leu	Met	Lys	Ala	Val	Ala	His	His
				245			250			255					
Pro	Val	Ser	Ile	Gly	Ile	Ala	Gly	Gly	Asp	Ile	Gly	Phe	Gln	Phe	Tyr
				260			265			270					
Ser	Ser	Gly	Val	Phe	Ser	Gly	Glu	Cys	Thr	Thr	His	Leu	Asp	His	Gly
				275			280			285					
Val	Thr	Ala	Val	Gly	Tyr	Gly	Arg	Ser	Lys	Asn	Gly	Leu	Lys	Tyr	Trp
				290			295			300					
Ile	Leu	Lys	Asn	Ser	Trp	Gly	Pro	Lys	Trp	Gly	Glu	Arg	Gly	Tyr	Met

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 <212> DNA
 <213> Lycopersicon esculentum

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 Met Lys Phe Ala Ile Phe Phe Val Val Leu Leu Thr Thr Thr Leu Val
 10 15 20

gat atg tct gga att tcg aaa atg caa gtg atg gct ctt cga gac ata 150
 Asp Met Ser Gly Ile Ser Lys Met Gln Val Met Ala Leu Arg Asp Ile
 25 30 35

ccc cca caa gaa aca ttg ctg aaa atg aag cta ctt ccc aca aat att 198
 Pro Pro Gln Glu Thr Leu Leu Lys Met Lys Leu Leu Pro Thr Asn Ile
 40 45 50 55

ttg gga ctt tgt aac gaa cct tgc agc tca aac tct gat tgc atc gga 246
 Leu Gly Leu Cys Asn Glu Pro Cys Ser Ser Asn Ser Asp Cys Ile Gly
 60 65 70

att acc ctt tgc caa ttt tgt aag gag aag acg gac cag tat ggt tta 294
 Ile Thr Leu Cys Gln Phe Cys Lys Glu Lys Thr Asp Gln Tyr Gly Leu
 75 80 85

aca tac cgt aca tgc aac ctg ttg cct tgaacaatat caatgatcta 341
 Thr Tyr Arg Thr Cys Asn Leu Leu Pro
 90 95

tcgatcgatc tatctatcta ttatctgtc tctgcgcgt a tagtgttgc tgcaccc 401
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 <212> PRT

<213> Lycopersicon esculentum

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20 25 30

Val Met Ala Leu Arg Asp Ile Pro Pro Gln Glu Thr Leu Leu Lys Met
35 40 45

Lys Leu Leu Pro Thr Asn Ile Leu Gly Leu Cys Asn Glu Pro Cys Ser
50 55 60

Ser Asn Ser Asp Cys Ile Gly Ile Thr Leu Cys Gln Phe Cys Lys Glu
65 70 75 80

Lys Thr Asp Gln Tyr Gly Leu Thr Tyr Arg Thr Cys Asn Leu Leu Pro
85 90 95

<210> 11

<211> 14

<212> PRT

<213> Lycopersicon esculentum

<400> 11
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<210> 12

<211> 18

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Protease
inhibitor PA1b peptide sequence

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1 5 10 15

Cys Ile

<210> 13

<211> 13

<212> PRT

<213> Pisum sp.

<400> 13

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1 5 10

<210> 14
<211> 13
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<213> Phaseolus limensis

<400> 14
Leu Cys Thr Lys Ser Ile Pro Pro Gln Cys Arg Cys Thr
1 5 10

<210> 15
<211> 12
<212> PRT
<213> Homo sapiens

<400> 15
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1 5 10

<210> 16
<211> 18
<212> PRT
<213> Lycopersicon esculentum

<400> 16
Thr Asn Ile Leu Gly Leu Cys Asn Glu Pro Cys Ser Ser Asn Ser Asp
1 5 10 15

Cys Ile

<210> 17
<211> 18
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Protease inhibitor PA1b peptide sequence

<400> 17
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1 5 10 15

Cys Arg

<210> 18
<211> 17
<212> PRT
<213> Hordeum vulgare

<400> 18
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1 5 10 15

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<210> 19
<211> 16
<212> PRT
<213> Triticum sp.

<400> 19
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1 5 10 15

<210> 20
<211> 16
<212> PRT
<213> Triticum sp.

<400> 20
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1 5 10 15

<210> 21
<211> 20
<212> PRT
<213> Panicum miliaceum

<400> 21
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1 5 10 15

Thr Ala Cys Gly
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<210> 22
<211> 18
<212> PRT
<213> Ricinus communis

<400> 22
Gln Gln Asn Leu Arg Gln Cys Gln Glu Tyr Ile Lys Gln Gln Val Ser
1 5 10 15

Gly Gln

<210> 23
<211> 18
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Napin small
subunit peptide sequence

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Gln Ser

<210> 24
<211> 4656
<212> DNA
<213> *Lycopersicon esculentum*

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<222> (1379)..(1444)

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 Leu Leu Thr Thr Leu
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 caa gtg atg gct ctt cga gac ata ccc cca caa gaa aca ttg ctg aaa 2233
 Gln Val Met Ala Leu Arg Asp Ile Pro Pro Gln Glu Thr Leu Leu Lys
 35 40 45
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 Met Lys Leu Leu Pro Thr Asn Ile Leu Gly Leu Cys Asn Glu Pro Cys
 50 55 60
 agc tca aac tct gat tgc atc gga att acc ctt tgc caa ttt tgt aag 2329
 Ser Ser Asn Ser Asp Cys Ile Gly Ile Thr Leu Cys Gln Phe Cys Lys
 65 70 75

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80																				
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Pro																				
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gcc	ata	aa	at	tt	tt	tt	tt	tt	tt	tt	tt	3570								
ctc	c	tt	ta	at	gt	gg	ac	tc	ta	tt	gt	aa	at	gg	at	gg	gg	ac	ca	3630
agacc	ac	tg	act	g	act	g	aa	gt	ta	aa	tt	aa	tt	aa	tt	aa	tt	aa	tt	3690
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<210> 25
 <211> 96
 <212> PRT
 <213> Lycopersicon esculentum

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Val Met Ala Leu Arg Asp Ile Pro Pro Gln Glu Thr Leu Leu Lys Met
 35 40 45

Lys	Leu	Leu	Pro	Thr	Asn	Ile	Leu	Gly	Leu	Cys	Asn	Glu	Pro	Cys	Ser
50					55					60					

Ser Asn Ser Asp Cys Ile Gly Ile Thr Leu Cys Gln Phe Cys Lys Glu
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Lys	Thr	Asp	Gln	Tyr	Gly	Leu	Thr	Tyr	Arg	Thr	Cys	Asn	Leu	Leu	Pro
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tgataatata aaaaaaattt caattcgaaa agggcctaaa atattctcaa agtattcgaa 180
atggtacaaa actaccatcc gtccacctat tgactccaaa ataaaattat tatccaccc 240
tgagttaaa attgactact tatataacaa ttctaaattt aaactatTTT aatactttt 300
aaaatacatg gcgttcaaat attaatata attaatTTA tgaatatcat ttataaacca 360
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aatttaagat taatggtaaa gaagtagtac atcccgaatt aattcatgcc ttttttaat 600
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taaaaattat ctattaagta ccatcacata attgagacga aggaataatt aagatgaaca 720
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<223> Description of Artificial Sequence: Synthetic
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